

Application No.: 10/080,669

Reply to the Office Action dated: October 20, 2005

BASIS FOR THE AMENDMENT

Claim 16 has been canceled. The limitations of Claim 16 have been included in Claims 1 and 2.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-15, 17-20 will now be active in this application.

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The acrylonitrile styrene resin containing 3 to 50 mass % of a flexible component having glass transition temperature T_g lower than 25°C has been defined in Claims 1 and 2 as acrylonitril acryl rubber styrene resin [ASA (ASS) resin], acrylonitril-chlorinated polyethylene-styrene resin (ACS resin), acrylonitrile butadiene styrene resin (ABS resin), acrylonitrile ethylene propylene styrene resin (AES resin), or acrylonitrile silicone styrene resin (ASS resin). Thus, this acrylonitrile styrene resin containing the flexible component is a copolymer and not a blend.

In contrast, Nakazawa et al and Kabata et al fail to disclose or suggest an endless belt as claimed having an acrylonitrile-styrene resin as claimed.

The belt disclosed by Nakazawa et al is made of a blend containing different thermoplastic resins such as styrene-acrylonitrile copolymer, polystyrene, polybutadiene, and polyamide. The belt disclosed by Kabata et al is also made of a blend containing polycarbonate, polyamide, styrene-acrylonitrile copolymer, polyester, polybutadiene, silicone resin and the like. Namely, it is evident that both of the references disclose a belt made of **blended resins**.

However, each of ABS resin, AAS (ASA) resin, AES resin, ASS resin, and ACS resin in amended Claims 1 and 2 is a copolymer, not a blend of acrylonitrile-styrene copolymer and a flexible component (e.g., polybutadiene). For example, ABS resin is a thermoplastic resin containing, as a main component, acrylonitrile (A), butadiene (B) and styrene (S), and it is prepared by graft-copolymerization of acrylonitrile -styrene copolymer with a dispersed polybutadiene particles. ABS resin differs from a mere blend of polybutadiene and acrylonitrile-styrene copolymer.

Likewise, AAS (ASA) resin is prepared by graft-polymerization of acrylonitrile-styrene copolymer with acryl rubber, and AES resin is prepared by graft-polymerization of acrylonitrile-styrene copolymer with ethylene-propylene rubber.

In addition, ASS resin is prepared by graft-polymerization of acrylonitrile-styrene copolymer with silicone rubber, and ACS resin is prepared by graft-polymerization of acrylonitrile-styrene copolymer with chlorinated polyethylene rubber.

In case of a mere blend of acrylonitrile-styrene copolymer and polybutadiene rubber, a high strength cannot be obtained because the coagulated parts of the polybutadiene portion in the blend will not become smaller than at best about 10 μm , thus resulting in occurrence of crack in the interface between the polybutadiene and acrylonitrile-styrene copolymer.

On the other hand, according to the present invention, the copolymerization of polybutadiene (as a flexible component) and acrylonitrile-styrene copolymer will allow the above-mentioned coagulated parts to become about 100 nm in size, thus making it possible to obtain an exceedingly high strength.

According to the present invention, it is possible to achieve an excellent strength, in particular, good flexibility, resistance to creeping, and further, dimension stability for the first time by using, as a base material, the resin obtained by copolymerization of acrylonitrile-styrene resin copolymer with 3 to 50 mass% of a flexible component having glass transition temperature T_g lower than 25°C.

This is not disclosed or suggested by the cited references and thus, even a combination of Nakazawa et al and Kabata et al does not result in the present invention.

Therefore, the rejection of Claims 1-20 under 35 U.S.C. § 103(a) as unpatentable over Nakazawa et al in view of Kabata et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

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This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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